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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/589,363

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Dan Pitulia

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EXAMINER

HOPKINS, CHRISTINE D

ART UNIT

PAPER NUMBER

3735

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/589,363	Applicant(s) PITULIA, DAN	
	Examiner CHRISTINE D. HOPKINS	Art Unit 3735	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 27 May 2008.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 12-20 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 12-20 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. This Office Action is responsive to the Amendment filed 27 May 2008. Claims 12-20 are now pending. The Examiner acknowledges the cancellation of claims 1-5 and 7-11. The indicated allowability of claims 12-20 is withdrawn in view of the newly discovered references to Lenhardt et al. (U.S. Patent No. 5,047,994) in view of Rastatter et al. (U.S. Patent No. 5,961,443). Rejections based on the newly cited references follow.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 12-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lenhardt et al. (U.S. Patent No. 5,047,994) in view of Rastatter et al. (U.S. Patent No. 5,961,443). Lenhardt et al. (hereinafter Lenhardt) disclose a bone conduction hearing device aided by a vibratory element for transmission of frequencies across the skull. Regarding claims 12-14, Lenhardt teaches a method comprising: receiving sound with a bone conducting hearing aid **11** having a bone conduction attachment embedded in the skull (temporal bone) via a screw (col. 3, lines 39-52 and col. 5, lines 26-33). Frequencies that are critical for noise detection, such as a user's voice, may be

preferentially amplified (col. 4, lines 34-38), and signal processing on such sounds by the aid may include filters to reduce surrounding sounds (col. 5, lines 5-14) thus relieving problems associated with stuttering. A vibrator of the hearing aid applies vibrations to the skull for bone conduction at varying frequencies to both inner ears (col. 3, lines 39-52). Each ear of the user may receive sound information having different frequencies, such as speech embedded with background noise or the filtering of background noise such that reduction in unwanted sound occurs (col. 5, lines 5-14), in accordance with claim 20.

Regarding claim 15, the frequency characteristics of the hearing aid may be adjusted (col. 5, lines 20-24).

With respect to claims 16 and 18, Lenhardt teaches a signal processing unit also interpreted as an adjustable delay circuit, since the signal processing unit of Lenhardt amplifies and filters particular frequencies depending on the individual needs of a user. Some filters utilized will attenuate the signal, thus delaying its arrival to the other ear (col. 4, lines 26-51), which causes confusion and subsequently invokes stuttering.

Regarding claim 17, since Applicant fails to provide a description of "a forward direction," the microphone of Lenhardt is determined to suppress sounds from other directions than "a forward direction" since amplification of signals at particular frequencies allows the user to sense the direction, distance and speed of particular sounds (col. 6, lines 64-68). With respect to claim 19, Lenhardt teaches shifting a frequency of the voice of the user fed back to the user (col. 3, lines 53-67).

However, Lenhardt fails to disclose that the method treats stuttering. Rastatter et al. (hereinafter Rastatter) teaches a device and method for ameliorating stuttering by providing an altered auditory feedback to a user. Regarding claims 12-20, Rastatter discloses a frequency shift circuit, used in conjunction with a delay circuit (col. 8, lines 27-37) (also as in the instant application) for returning a feedback signal to the user and for manipulating non-desireable signal distortions (col. 9, lines 27-37). Rastatter further teaches filtering higher frequencies to remove unwanted background noise (col. 7, lines 57-58) and preventing sounds other than a user's voice from being transmitted by the user (col. 8, lines 57-62), both scenarios which can trigger stuttering in an individual. Lenhardt similarly teaches the reduction of noises which would prevent a user from picking up the desired speech or signal (col. 5, lines 5-14). Therefore, at the time of the invention it would have been obvious to one having ordinary skill in the art to have utilized a method for treating stuttering suggested by Rastatter, as a method for improving the hearing of an individual as taught by Lenhardt, since both methods focus on the amplification of speech transmitted to a user and the reduction of unwanted noises received by a hearing aid.

Response to Arguments

4. Applicant's arguments filed 27 May 2008 with respect to the rejection of claims 1-5, 7, 8 and 11 under 35 U.S.C. 102(b) citing Lenhardt ('994) have been fully considered but are moot in view of their cancellation.

5. Applicant's arguments filed 27 May 2008 with respect to claims 12-20 have been fully considered but are moot in view of the new grounds of rejection under 35 U.S.C. 103(a) as being unpatentable over Lenhardt ('994) in view of Rastatter ('443).

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to CHRISTINE D. HOPKINS whose telephone number is (571)272-9058. The examiner can normally be reached on Monday-Friday, 7 a.m.-3:30 p.m..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Charles Marmor, II can be reached on (571) 272-4730. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a

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USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/C. D. H./
Christine D Hopkins
Examiner
Art Unit 3735

/Charles A. Marmor, II/
Supervisory Patent Examiner
Art Unit 3735